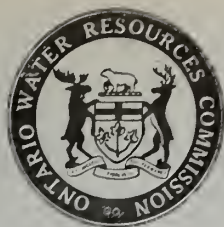


ONTARIO WATER RESOURCES COMMISSION
DIVISION OF WATER RESOURCES.

ONTARIO MINISTRY OF ENVIRONMENT



36936000021266



THE
ONTARIO WATER RESOURCES
COMMISSION

INDUSTRIAL WATER USE SURVEY

COUNTY OF CARLETON

JUNE 1961

SURFACE WATERS BRANCH

WATER RESOURCES DIVISION

MOE
CAR
IND
ASIV

c.1
a aa

LIBRARY COPY

FEB 20 1969

ONTARIO WATER

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

An industrial water use survey carried out
as part of the Water Resources Survey in
the County of Carleton and presented in some
detail for internal information and use.

JUNE 1961

SURFACE WATER BRANCH

ONTARIO WATER RESOURCES COMMISSION



Environment Canada
Laboratory & Library
125 University Ave.
Toronto, Ontario M5S 3V6
Canada

TABLE OF CONTENTS

Introduction

Chapter 1. Carleton County Summary


Chapter 2. City of Ottawa

Chapter 3. Town of Eastview

Chapter 4. Township of Gloucester

Chapter 5. Township of Nepean

Chapter 6. Municipalities of Richmond,
Rockcliffe Park, Stittsville,
Fitzroy, Goulbourn, Gower
North, Huntley, March, Marlborough,
Osgoode and Torbolton.



Digitized by the Internet Archive
in 2015

INTRODUCTION

This report presents the most important data obtained while carrying out an industrial water use survey in the County of Carleton in June of 1961. The field work and subsequent preparation of the report were carried out by B. Adams.

The industrial water use survey was carried out in connection with the Carleton County Water Resources Survey. This portion of the broader County survey has been prepared as an internal report to expedite the preparation of the county report and to present details which will not appear in the County report.

Various methods were employed in the process of obtaining data for this industrial water use report. Lists of industries and annual water consumption figures for industries utilizing municipal water were first obtained from municipal officials. Major water users, and those with private supplies, were visited personally in the field, and all others were telephoned. During these interviews, general information concerning products, employees and operations, and specific supply information related to average consumption, specific water uses (sanitary, processing and cooling) and special problems were obtained.

The average water consumption figures given in this report are based on annual consumption figures divided by the number of days (366) in the year.

continued

Consumption figures were not available in the case of a few industries. Estimates were based on an average consumption of 20 gallons per employee per day for sanitary purposes,

The annual industrial water consumption is approximately 12 per cent of the total municipal water consumption. This figure reflects the industrial nature of the County.

1-1

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

CHAPTER 1

CARLETON COUNTY SUMMARY

1870

THE
LIBRARY OF THE
MUSEUM OF NATURAL HISTORY

NEW YORK

Industrial Water Supplies - Carleton County Summary

General. The following table presents a summary of data concerning industrial water use in 1960 in the County of Carleton:

| <u>Source</u> | <u>No. of Firms</u> | <u>Average Daily Consumption</u> (gpd x 10 ⁶) | <u>Specific Water Uses</u> | | | | | |
|---------------|---------------------|--|----------------------------|--------------------------|-------------------|--------------------------|----------------|--------------------------|
| | | | <u>Sanitary</u> | | <u>Processing</u> | | <u>Cooling</u> | |
| | | | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) |
| Municipal | 108 | 1.105 | 41.6 | 0.460 | 42.7 | 0.472 | 15.7 | 0.173 |
| Private | 5 | <u>2.280</u> | 0.6 | <u>0.013</u> | 69.2 | <u>1.579</u> | 30.2 | <u>0.688</u> |
| Total | 110 | 3,385 | 14.0 | 0.473 | 60.5 | 2.051 | 25.5 | 0.861 |

A summary table by municipalities is given below.

There is a total of 110 diversified industries in the County of Carleton. These industries include forest products enterprises, metal works, printing firms etc., and are largely concentrated in and around the City of Ottawa.

Industry in the County of Carleton relies on two sources for its water supply. The surface water supply in use is the Ottawa River and the ground water supplies are private wells distributed throughout the County. Generally industries which lie on the Ottawa River use the river for their water supply and industries lying inland have their own private wells.

Two of the 110 industries in the County of Carleton obtain water exclusively from private water sources, 105 exclusively from municipal waterworks systems and 3 from both private sources and municipal waterworks systems. In the case of the latter three industries, the water

continued

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF THE HISTORY OF ARTS

CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF THE HISTORY OF ARTS
CHICAGO, ILLINOIS

obtained from private sources is used largely for processing and cooling purposes.

The average daily industrial water consumption in the County of Carleton in 1960 was 3,385,000 gallons per day of which approximately 33 per cent was obtained from municipal waterworks systems and 67 per cent from private sources. It is hence immediately evident that the relatively few industries with private water supplies obtain the larger percentage of water used for industrial purposes in the County of Carleton from these private supplies. The more numerous enterprises which are supplied by municipal waterworks systems use less water than those firms obtaining water from private supplies.

In general, with respect to specific uses approximately 14 per cent of the total amount of water consumed by industries in the County during 1960 was used for sanitary purposes, 60.5 per cent for processing purposes and 25.5 per cent for cooling purposes.

Municipal. The average daily amount of water obtained from municipal waterworks systems by industries in the County of Carleton in 1960 was 1,105,000 gallons per day. Of this amount 41.6 per cent was used for sanitary purposes, 42.7 per cent for processing purposes and 15.7 per cent for cooling purposes.

Private. Industries in the County of Carleton obtained an average of 2,280,000 gallons per day from private sources in 1960 of which 0.6 per cent was used for sanitary purposes, 69.2 per cent was used for processing purposes and 30.2 per cent was used for cooling purposes.

continued

Received of the Treasurer of the County of ...

the sum of ... Dollars ...

To ... and ...

...

...

...

...

This water was obtained from the Ottawa River and from several private wells. A table of industrial uses of water obtained from private sources is given below.

TABLE OF INDUSTRIAL WATER USE IN LAMAR COUNTY

| Municipality & Source | No. of Firms | Average Daily Consumption 1960 (gpd x 106) | | Sanitary (%) (gpd x 10 ⁶) | | Specific Water Usage Processings (%) (gpd x 10 ⁶) | | Cooling (%) (gpd x 10 ⁶) | |
|-------------------------------|-----------------|---|------|--|------|---|------|---|--|
| | | | | | | | | | |
| <u>City of Ottawa</u> | | | | | | | | | |
| Municipal | 96 | 1,036 | 40.5 | 0.444 | 43.7 | 0.470 | 15.8 | 0.172 | |
| Private | 3 | 2,258 | 0 | 0 | 69.6 | 1,572 | 30.4 | 0.685 | |
| Total | 96 | 3,344 | 13.3 | 0.444 | 61.1 | 2,042 | 25.6 | 0.858 | |
| <u>Town of Eastview</u> | | | | | | | | | |
| Municipal | 12 | 0.019 | 84.2 | 0.016 | 10.3 | 0.002 | 5.5 | 0.001 | |
| Private | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total | 12 | 0.019 | 84.2 | 0.016 | 10.3 | 0.002 | 5.5 | 0.001 | |
| <u>Township of Gloucester</u> | | | | | | | | | |
| Municipal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private | 1 | 0.009 | 30 | 0.003 | 70 | 0.006 | 0 | 0 | |
| Total | 1 | 0.009 | 30 | 0.003 | 70 | 0.006 | 0 | 0 | |

| <u>Municipality & Source</u> | <u>No. of Firms</u> | <u>Average Daily Consumption 1960</u> (gpd x 10 ⁶) | <u>Sanitary</u> (%) (gpd x 10 ⁶) | <u>Specific Water Use</u> <u>Processing</u> (%) (gpd x 10 ⁵) | <u>Cooling</u> (%) (gpd x 10 ⁶) |
|--------------------------------------|-------------------------|---|---|--|--|
|--------------------------------------|-------------------------|---|---|--|--|

| <u>Township of</u> | | | | | | | | | |
|--------------------|---|-------|----|-------|---|-------|----|-------|---|
| <u>Nenah</u> | | | | | | | | | |
| Municipal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Private | 1 | 0.013 | 80 | 0.010 | 5 | 0.001 | 15 | 0.002 | |
| | | <hr/> | | <hr/> | | <hr/> | | <hr/> | |
| Total | 1 | 0.013 | 80 | 0.010 | 5 | 0.001 | 15 | 0.002 | |

1-6

| | | | | | | | | |
|--------------|-----|-------|------|-------|------|-------|------|-------|
| County Total | 110 | 3.385 | 13.9 | 0.473 | 60.7 | 2.051 | 25.4 | 0.861 |
|--------------|-----|-------|------|-------|------|-------|------|-------|

TABLE OF INDUSTRIAL WATER USE IN CANADIAN COUNTRY -
WATER OBTAINED FROM PRIVATE SOURCES

| Municipality | Industry | Source | Private Water | Sanitary | Specific Uses | Cooling |
|--------------|----------|--------|---------------------|----------|---------------|-----------|
| | | | Consumption 1960 | | Processing | |
| | | | (gpy) | (%) | (gpy) | (%) (gpy) |

| <u>City of Ottawa</u> | | | | | | | | | |
|--------------------------------------|-----------------|-------------|---|---|----|-------------|-----|-------------|--|
| Campbell Steel & Iron Works | Private Well | 732,000 | 0 | 0 | 0 | 0 | 100 | 732,000 | |
| R. L. Grain Ltd. | Private Well | 3,660,000 | 0 | 0 | 0 | 0 | 100 | 3,660,000 | |
| E. B. Eddy Company | Ottawa River | 822,117,252 | 0 | 0 | 70 | 575,482,076 | 30 | 245,635,176 | |

| | | | | | | | | | |
|---------------------------|---------------------------------------|-----------------|-----------|----|---------|----|-----------|---|---|
| Township of Gloucester | Bogue Electric Co. of Canada | Private Well | 3,288,729 | 30 | 986,619 | 70 | 2,302,110 | 0 | 0 |
| | TOTAL (gpy) | | 3,288,729 | 30 | 986,619 | 70 | 2,302,110 | 0 | 0 |
| | TOTAL (gpd) | | 8,986 | 30 | 2,696 | 70 | 6,290 | 0 | 0 |
| | | | | | | | | | |

1890-1891

1890-1891

1890-1891

1890-1891

1890-1891

1890-1891

1890-1891

1890-1891

1890-1891

| Municipality | Industry | Source | Private Water | | Specific Use | | | | |
|-----------------------|-----------------------------------|--------------------|---------------------|-----------|--------------|-----------|-------------|------|-------------|
| | | | Consumption 1960 | Sanitary | Processing | Cooling | | | |
| | | | (gpy) | (%) (gpy) | (%) (gpy) | (%) (gpy) | | | |
| Township of Neneau | Computing Devices of Canada | 2 Private wells | 4,684,800 | 80 | 3,747,840 | 5 | 234,240 | 15 | 702,720 |
| | | | TOTAL (gpy) | 80 | 3,747,840 | 5 | 234,240 | 15 | 702,720 |
| | | | TOTAL (gpd) | 80 | 10,240 | 5 | 640 | 15 | 1,920 |
| <hr/> | | | | | | | | | |
| COUNTY TOTAL (gpy) | | | 574,432,781 | 0.6 | 4,734,459 | 69.1 | 578,018,425 | 30.3 | 251,729,875 |
| COUNTY TOTAL (gpd) | | | 2,280,007 | 0.6 | 12,936 | 69.1 | 1,579,235 | 30.3 | 687,785 |

| No. | Name | Rank | Regiment | Company | Service | Remarks |
|-----|----------------|---------|------------|---------|-----------|------------|
| 1 | John Smith | Private | 1st Regt | A | 1861-1862 | Discharged |
| 2 | James Brown | Private | 2nd Regt | B | 1861-1862 | Discharged |
| 3 | William Jones | Private | 3rd Regt | C | 1861-1862 | Discharged |
| 4 | Robert Taylor | Private | 4th Regt | D | 1861-1862 | Discharged |
| 5 | Thomas White | Private | 5th Regt | E | 1861-1862 | Discharged |
| 6 | Charles Black | Private | 6th Regt | F | 1861-1862 | Discharged |
| 7 | George Green | Private | 7th Regt | G | 1861-1862 | Discharged |
| 8 | Henry Lee | Private | 8th Regt | H | 1861-1862 | Discharged |
| 9 | Samuel King | Private | 9th Regt | I | 1861-1862 | Discharged |
| 10 | David Clark | Private | 10th Regt | J | 1861-1862 | Discharged |
| 11 | John Adams | Private | 11th Regt | K | 1861-1862 | Discharged |
| 12 | William Miller | Private | 12th Regt | L | 1861-1862 | Discharged |
| 13 | Robert Wilson | Private | 13th Regt | M | 1861-1862 | Discharged |
| 14 | Thomas Moore | Private | 14th Regt | N | 1861-1862 | Discharged |
| 15 | Charles Taylor | Private | 15th Regt | O | 1861-1862 | Discharged |
| 16 | George Baker | Private | 16th Regt | P | 1861-1862 | Discharged |
| 17 | Henry Scott | Private | 17th Regt | Q | 1861-1862 | Discharged |
| 18 | Samuel Green | Private | 18th Regt | R | 1861-1862 | Discharged |
| 19 | David King | Private | 19th Regt | S | 1861-1862 | Discharged |
| 20 | John Lee | Private | 20th Regt | T | 1861-1862 | Discharged |
| 21 | William Clark | Private | 21st Regt | U | 1861-1862 | Discharged |
| 22 | Robert Adams | Private | 22nd Regt | V | 1861-1862 | Discharged |
| 23 | Thomas Miller | Private | 23rd Regt | W | 1861-1862 | Discharged |
| 24 | Charles Wilson | Private | 24th Regt | X | 1861-1862 | Discharged |
| 25 | George Moore | Private | 25th Regt | Y | 1861-1862 | Discharged |
| 26 | Henry Taylor | Private | 26th Regt | Z | 1861-1862 | Discharged |
| 27 | Samuel Baker | Private | 27th Regt | AA | 1861-1862 | Discharged |
| 28 | David Scott | Private | 28th Regt | AB | 1861-1862 | Discharged |
| 29 | John King | Private | 29th Regt | AC | 1861-1862 | Discharged |
| 30 | William Lee | Private | 30th Regt | AD | 1861-1862 | Discharged |
| 31 | Robert Clark | Private | 31st Regt | AE | 1861-1862 | Discharged |
| 32 | Thomas Adams | Private | 32nd Regt | AF | 1861-1862 | Discharged |
| 33 | Charles Miller | Private | 33rd Regt | AG | 1861-1862 | Discharged |
| 34 | George Wilson | Private | 34th Regt | AH | 1861-1862 | Discharged |
| 35 | Henry Moore | Private | 35th Regt | AI | 1861-1862 | Discharged |
| 36 | Samuel Taylor | Private | 36th Regt | AJ | 1861-1862 | Discharged |
| 37 | David Baker | Private | 37th Regt | AK | 1861-1862 | Discharged |
| 38 | John Scott | Private | 38th Regt | AL | 1861-1862 | Discharged |
| 39 | William King | Private | 39th Regt | AM | 1861-1862 | Discharged |
| 40 | Robert Lee | Private | 40th Regt | AN | 1861-1862 | Discharged |
| 41 | Thomas Clark | Private | 41st Regt | AO | 1861-1862 | Discharged |
| 42 | Charles Adams | Private | 42nd Regt | AP | 1861-1862 | Discharged |
| 43 | George Miller | Private | 43rd Regt | AQ | 1861-1862 | Discharged |
| 44 | Henry Wilson | Private | 44th Regt | AR | 1861-1862 | Discharged |
| 45 | Samuel Moore | Private | 45th Regt | AS | 1861-1862 | Discharged |
| 46 | David Taylor | Private | 46th Regt | AT | 1861-1862 | Discharged |
| 47 | John Baker | Private | 47th Regt | AU | 1861-1862 | Discharged |
| 48 | William Scott | Private | 48th Regt | AV | 1861-1862 | Discharged |
| 49 | Robert King | Private | 49th Regt | AW | 1861-1862 | Discharged |
| 50 | Thomas Lee | Private | 50th Regt | AX | 1861-1862 | Discharged |
| 51 | Charles Clark | Private | 51st Regt | AY | 1861-1862 | Discharged |
| 52 | George Adams | Private | 52nd Regt | AZ | 1861-1862 | Discharged |
| 53 | Henry Miller | Private | 53rd Regt | BA | 1861-1862 | Discharged |
| 54 | Samuel Wilson | Private | 54th Regt | BB | 1861-1862 | Discharged |
| 55 | David Moore | Private | 55th Regt | BC | 1861-1862 | Discharged |
| 56 | John Taylor | Private | 56th Regt | BD | 1861-1862 | Discharged |
| 57 | William Baker | Private | 57th Regt | BE | 1861-1862 | Discharged |
| 58 | Robert Scott | Private | 58th Regt | BF | 1861-1862 | Discharged |
| 59 | Thomas King | Private | 59th Regt | BG | 1861-1862 | Discharged |
| 60 | Charles Lee | Private | 60th Regt | BH | 1861-1862 | Discharged |
| 61 | George Clark | Private | 61st Regt | BI | 1861-1862 | Discharged |
| 62 | Henry Adams | Private | 62nd Regt | BJ | 1861-1862 | Discharged |
| 63 | Samuel Miller | Private | 63rd Regt | BK | 1861-1862 | Discharged |
| 64 | David Wilson | Private | 64th Regt | BL | 1861-1862 | Discharged |
| 65 | John Moore | Private | 65th Regt | BM | 1861-1862 | Discharged |
| 66 | William Taylor | Private | 66th Regt | BN | 1861-1862 | Discharged |
| 67 | Robert Baker | Private | 67th Regt | BO | 1861-1862 | Discharged |
| 68 | Thomas Scott | Private | 68th Regt | BP | 1861-1862 | Discharged |
| 69 | Charles King | Private | 69th Regt | BQ | 1861-1862 | Discharged |
| 70 | George Lee | Private | 70th Regt | BR | 1861-1862 | Discharged |
| 71 | Henry Clark | Private | 71st Regt | BS | 1861-1862 | Discharged |
| 72 | Samuel Adams | Private | 72nd Regt | BT | 1861-1862 | Discharged |
| 73 | David Miller | Private | 73rd Regt | BU | 1861-1862 | Discharged |
| 74 | John Wilson | Private | 74th Regt | BV | 1861-1862 | Discharged |
| 75 | William Moore | Private | 75th Regt | BW | 1861-1862 | Discharged |
| 76 | Robert Taylor | Private | 76th Regt | BX | 1861-1862 | Discharged |
| 77 | Thomas Baker | Private | 77th Regt | BY | 1861-1862 | Discharged |
| 78 | Charles Scott | Private | 78th Regt | BZ | 1861-1862 | Discharged |
| 79 | George King | Private | 79th Regt | CA | 1861-1862 | Discharged |
| 80 | Henry Lee | Private | 80th Regt | CB | 1861-1862 | Discharged |
| 81 | Samuel Clark | Private | 81st Regt | CC | 1861-1862 | Discharged |
| 82 | David Adams | Private | 82nd Regt | CD | 1861-1862 | Discharged |
| 83 | John Miller | Private | 83rd Regt | CE | 1861-1862 | Discharged |
| 84 | William Wilson | Private | 84th Regt | CF | 1861-1862 | Discharged |
| 85 | Robert Moore | Private | 85th Regt | CG | 1861-1862 | Discharged |
| 86 | Thomas Taylor | Private | 86th Regt | CH | 1861-1862 | Discharged |
| 87 | Charles Baker | Private | 87th Regt | CI | 1861-1862 | Discharged |
| 88 | George Scott | Private | 88th Regt | CJ | 1861-1862 | Discharged |
| 89 | Henry King | Private | 89th Regt | CK | 1861-1862 | Discharged |
| 90 | Samuel Lee | Private | 90th Regt | CL | 1861-1862 | Discharged |
| 91 | David Clark | Private | 91st Regt | CM | 1861-1862 | Discharged |
| 92 | John Adams | Private | 92nd Regt | CN | 1861-1862 | Discharged |
| 93 | William Miller | Private | 93rd Regt | CO | 1861-1862 | Discharged |
| 94 | Robert Wilson | Private | 94th Regt | CP | 1861-1862 | Discharged |
| 95 | Thomas Moore | Private | 95th Regt | CQ | 1861-1862 | Discharged |
| 96 | Charles Taylor | Private | 96th Regt | CR | 1861-1862 | Discharged |
| 97 | George Baker | Private | 97th Regt | CS | 1861-1862 | Discharged |
| 98 | Henry Scott | Private | 98th Regt | CT | 1861-1862 | Discharged |
| 99 | Samuel King | Private | 99th Regt | CU | 1861-1862 | Discharged |
| 100 | David Lee | Private | 100th Regt | CV | 1861-1862 | Discharged |

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

CHAPTER 2

CITY OF OTTAWA



Industrial Water Supplies - City of Ottawa

General. The following table presents a summary of data concerning industrial water use in 1960 in the City of Ottawa:

| <u>Source</u> | <u>No. of Firms</u> | <u>Specific Water Uses</u> | | | | | | |
|---------------|---------------------|----------------------------------|-----------------|--------------------------|-------------------|--------------------------|----------------|--------------------------|
| | | <u>Average Daily Consumption</u> | <u>Sanitary</u> | | <u>Processing</u> | | <u>Cooling</u> | |
| | | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) |
| Municipal | 96 | 1.086 | 40.5 | 0.444 | 43.7 | 0.470 | 15.8 | 0.172 |
| Private | <u>3</u> | <u>2.258</u> | <u>0</u> | <u>0</u> | <u>69.6</u> | <u>1.572</u> | <u>30.4</u> | <u>0.686</u> |
| TOTAL | 96 | 3.344 | 13.3 | 0.444 | 61.1 | 2.042 | 25.6 | 0.858 |

The City of Ottawa is not a highly developed industrial area. The larger percentage of the Ottawa labour force is employed in the civil service. There are approximately 96 manufacturing industries in the City. Most of these enterprises are small and diversified with the exception of a very few. Of the 96 industries in the City, approximately 40 firms use water for industrial processing and/or cooling. Thus over 50 enterprises are dry industries.

Municipal. All industries in the City of Ottawa obtain water from the municipal waterworks system. From this supply approximately 40 per cent is used for sanitary purposes, 44 per cent for processing purposes and 16 per cent for cooling purposes.

Private. Only three firms in the City have private water supplies, but the consumption from these supplies represents approximately 66 per cent of the total municipal consumption. No water from the private supplies is used for sanitary purposes. Approximately 70 per cent is used for processing purposes and 30 per cent for cooling purposes.

TABLE OF MUNICIPAL WATER SUPPLIED TO INDUSTRIES IN THE
CITY OF OTTAWA WHICH USE A PORTION OF THIS WATER FOR
PROCESSING AND/OR COOLING

NOTE: All municipal water is supplied from waterworks system of the City of Ottawa

| <u>Industry</u> | <u>Municipal</u> <u>Water</u> | | <u>Sanitary</u> | | <u>Processing</u> | | <u>Specific Water Uses</u> | |
|--|-----------------------------------|-------|-----------------|-----------|-------------------|-----------|----------------------------|-----------|
| | <u>Consumption</u> <u>1960</u> | (gpy) | (%) | (gpy) | (%) | (gpy) | (%) | (gpy) |
| Allen & Rollaston (Ottawa) Ltd. | 92,352 | | 20 | 18,470 | 80 | 73,881 | 0 | 0 |
| Atomic Energy of Canada | 1,140,000 | | 70 | 780,000 | 30 | 360,000 | 0 | 0 |
| R. J. Bastien & Co. | 371,280 | | 80 | 297,024 | 20 | 74,256 | 0 | 0 |
| Beach Foundry Ltd. | 10,737,168 | | 20 | 2,147,434 | 50 | 5,368,584 | 30 | 3,221,150 |
| Borden Co. Ltd., (Chateau Cheese Division) | 2,414,256 | | 30 | 724,277 | 55 | 1,327,841 | 15 | 362,138 |
| British American Bank Note Co. Ltd. | 6,411,600 | | 10 | 641,160 | 0 | 0 | 90 | 5,770,440 |

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

2011-12

| <u>Industry</u> | <u>Municipal</u> | | <u>Sanitary</u> | | <u>Processing</u> | | <u>Cooling</u> | |
|----------------------------------|-----------------------------------|-------|-----------------|-------|-------------------|-------|----------------|-------|
| | <u>Water</u> | | | | | | | |
| | <u>Consumption</u> <u>1960</u> | (gpy) | (%) | (gpy) | (%) | (gpy) | (%) | (gpy) |
| Campbell Ltd. & Iron Works | 499,200 | 40 | 199,680 | 50 | 299,520 | 0 | 0 | |
| Canadian Bank Note Co. Ltd. | 9,263,916 | 20 | 1,352,799 | 15 | 1,390,334 | 65 | 6,024,783 | |
| Canadian Pittsburg Industries | 141,024 | 60 | 34,614 | 40 | 56,410 | 0 | 0 | |
| Capital Wire & Cloth | 2,761,824 | 30 | 828,547 | 0 | 0 | 70 | 1,933,277 | |
| Citizen Publishing Co. | 1,213,056 | 20 | 242,611 | 0 | 0 | 80 | 970,445 | |
| R. L. Crain Ltd. | 67,236,000 | 70 | 47,065,200 | 30 | 20,170,800 | 0 | 0 | |
| Crawley Films Ltd. | 1,219,920 | 60 | 731,952 | 40 | 487,968 | 0 | 0 | |
| Davidson Foundry | 185,328 | 80 | 148,262 | 20 | 37,066 | 0 | 0 | |
| O. L. DeRouin & Sons | 238,992 | 20 | 47,798 | 50 | 119,496 | 30 | 71,698 | |
| Dominion Loose Leaf Co. | 927,888 | 40 | 371,155 | 60 | 556,733 | 0 | 0 | |
| Durbane Mfg. Co. Ltd | 7,999,680 | 2 | 159,994 | 90 | 7,199,712 | 8 | 639,974 | |
| Alexander Fleck Ltd. | 606,528 | 90 | 545,875 | 0 | 0 | 10 | 60,653 | |
| Fraser Duntille Co. Ltd. | 683,904 | 40 | 273,562 | 60 | 410,342 | 0 | 0 | |
| Harry Hayley & Sons | 1,122,576 | 5 | 56,129 | 95 | 1,166,447 | 0 | 0 | |

continued

IndustryMunicipalWater
Consumption
1960SanitarySpecific Water UsesProcessingCooling

| | (gpy) | (%) | (gpy) | (%) | (gpy) | (%) | (gpy) |
|---|-------------|-----|-----------|-----|-------------|-----|------------|
| Imperial Optical Co. | 155,550 | 80 | 124,440 | 20 | 31,110 | 0 | 0 |
| LeDroit Publishing Co. | 2,206,464 | 60 | 1,323,878 | 10 | 220,646 | 30 | 661,940 |
| Mechron Engineering Products Ltd. | 838,576 | 80 | 710,861 | 0 | 0 | 20 | 177,715 |
| Journal Publishing Co. | 4,524,000 | 50 | 2,262,000 | 20 | 904,800 | 30 | 1,357,200 |
| Alex Moore | 286,416 | 60 | 171,850 | 40 | 114,566 | 0 | 0 |
| National Drug & Chemical Company of Canada | 929,760 | 45 | 418,392 | 35 | 325,416 | 20 | 185,952 |
| O'Keefes Brewery Limited | 144,543,984 | 5 | 7,227,199 | 80 | 115,635,187 | 15 | 21,681,598 |
| Ontario Beauty Supply | 153,504 | 70 | 107,453 | 30 | 46,051 | 0 | 0 |
| O.P.W. Paints Limited | 8,811,504 | 10 | 881,150 | 15 | 1,321,726 | 75 | 6,608,628 |
| Ottawa Birch & Terra Cotta Co. Limited | 6,531,700 | 65 | 4,245,600 | 25 | 1,632,925 | 10 | 653,170 |
| Rapid Grip & Batten Ltd. | 870,480 | 25 | 217,620 | 45 | 391,716 | 30 | 261,144 |
| Safety Vermin Control | 69,888 | 60 | 41,933 | 40 | 27,955 | 0 | 0 |
| Sun Tube Co. of Canada | 4,277,520 | 15 | 641,628 | 75 | 3,208,140 | 10 | 427,752 |
| Thomas Supply & Equip. | 3,672,240 | 15 | 550,836 | 65 | 2,386,956 | 20 | 734,448 |

Continued

THE
JOURNAL OF THE
ROYAL ANTHROPOLOGICAL INSTITUTE

12
4
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842

13
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
36
38
40
42
44
46
48
50
52
54
56
58
60
62
64
66
68
70
72
74
76
78
80
82
84
86
88
90
92
94
96
98
100

| <u>Industry</u> | <u>Municipal</u> | | <u>Sanitary</u> | | <u>Processing</u> | | <u>Specific Water Uses</u> | |
|-----------------------|-----------------------------------|------|-----------------|------|-------------------|------|----------------------------|--|
| | <u>Water</u> | | | | | | | |
| | <u>Consumption</u> <u>1960</u> | | | | | | <u>Cooling</u> | |
| | (gpy) | (%) | (gpy) | (%) | (gpy) | (%) | (gpy) | |
| Valley Chemicals | 19,968 | 30 | 5,990 | 70 | 13,978 | 0 | 0 | |
| Victoria Foundry | 1,339,738 | 20 | 267,946 | 50 | 669,864 | 30 | 401,918 | |
| Ottawa City Dairy | 145,329 | 50 | 72,664 | 15 | 21,799 | 35 | 50,866 | |
| Borden Dairy (Ottawa) | 32,507,280 | 70 | 22,755,096 | 10 | 3,250,728 | 20 | 6,501,456 | |
| Clark's Dairy | 20,952,672 | 65 | 13,619,237 | 15 | 3,142,901 | 20 | 4,190,534 | |
| Total (gpy) | 348,158,058 | 32.0 | 112,863,316 | 49.9 | 172,345,854 | 18.1 | 62,948,888 | |
| Total (gpd) | 951,195 | 32.0 | 308,370 | 49.9 | 470,891 | 18.1 | 171,991 | |

3-1

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

CHAPTER 3

TOWN OF EASTVIEW

Industrial Water Supplies - Town of Eastview

General. The following table presents a summary of data concerning industrial water use in 1960 in the Town of Eastview:

| <u>Source</u> | <u>No. of Firms</u> | <u>Specific Water Uses</u> | | | | | | |
|---------------|-------------------------|--|-----------------|-----------------------------|-------------------|-----------------------------|----------------|-----------------------------|
| | | <u>Average Daily Consump- tion</u> | <u>Sanitary</u> | | <u>Processing</u> | | <u>Cooling</u> | |
| | | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) |
| Municipal | 12 | 0.019 | 84.2 | 0.016 | 10.3 | 0.002 | 5.5 | 0.001 |
| Private | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | --- | --- | --- | --- | --- | --- | --- | --- |
| TOTAL | 12 | 0.019 | 84.2 | 0.016 | 10.3 | 0.002 | 5.5 | 0.001 |

In the Town of Eastview there is relatively little industry. The largest enterprise is the Dominion Bridge Company which employs approximately 100 persons. The amount of water consumed industrially is relatively small. All industrial water is obtained from the municipal waterworks system. Approximately 85 per cent of this supply is used for sanitary purposes, 10 per cent for processing and 5 per cent for cooling purposes.

TABLE OF MUNICIPAL WATER SUPPLIED TO INDUSTRIES IN THE TOWN OF EASTVIEW
WHICH USE A PORTION OF THIS WATER FOR PROCESSING AND/OR COOLING

| Industry | Municipal Water Consumption 1960 | | Specific Water Uses | | | |
|--------------------------------------|---|------|---------------------|---------------------|----------------|---------|
| | (gpy) | (%) | Sanitary (gpy) | Processing (gpy) | Cooling (%) | (gpy) |
| Allied Paper Products | 700,000 | 80 | 560,000 | 0 | 20 | 140,000 |
| Betcherman Iron and Metal Company | 90,450 | 60 | 54,258 | 40 | 0 | 0 |
| Band Brass Limited | 308,630 | 65 | 200,609 | 15 | 20 | 61,726 |
| McKay Smelters Limited | 256,200 | 60 | 153,720 | 25 | 15 | 38,430 |
| Ottawa Iron Works | 172,224 | 90 | 155,002 | 0 | 10 | 17,222 |
| Twin City Dunbrick Co. | 915,533 | 20 | 183,107 | 65 | 15 | 137,330 |
| TOTAL (gpy) | 2,443,067 | 53.4 | 1,306,726 | 30.4 | 16.2 | 394,708 |
| TOTAL (gpd) | 6,675 | 53.4 | 3,570 | 30.4 | 16.2 | 1,079 |

Note: All municipal water is supplied from waterworks system of the Town of Eastview

4-1

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

CHAPTER 4

TOWNSHIP OF CLOUCESTER

Industrial Water Supplies - Township of Gloucester

General. The following table presents a summary data concerning industrial water use in 1960 in the Township of Gloucester:

| <u>Source</u> | <u>No. of Firms</u> | <u>Average Daily Consumption</u> (gpd x 10 ⁶) | <u>Specific Water Uses</u> | | | | | |
|---------------|---------------------|--|----------------------------|--------------------------|-------------------|--------------------------|----------------|--------------------------|
| | | | <u>Sanitary</u> | | <u>Processing</u> | | <u>Cooling</u> | |
| | | | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) | (%) | (gpd x 10 ⁶) |
| Municipal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Private | 1 | 0.009 | 30 | 0.003 | 70 | 0.006 | 0 | 0 |
| | — | — | — | — | — | — | — | — |
| TOTAL | 1 | 0.009 | 30 | 0.003 | 70 | 0.006 | 0 | 0 |

The Township of Gloucester has only one major industry, the Bogue Electric Company of Canada Limited. This firm has a private well which supplies all water. From this supply 70 per cent is used directly for industrial processing and the remaining 30 per cent for sanitary purposes.

COUNTY OF CARLETON

INDUSTRIAL WATER USE SURVEY

CHAPTER 5

TOWNSHIP OF NEFFAN

Industrial Water Supplies - Township of Nepean

General. The following table presents a summary of data concerning industrial water use in 1960 in the Township of Nepean.

| <u>Source</u> | <u>No. of Firms</u> | <u>Average Daily Consumption</u> (gpd x 10 ⁶) | <u>Specific Water Uses</u> | | | | | |
|---------------|---------------------|--|----------------------------|-------------------------------|--------------------------|-------------------------------|-----------------------|-------------------------------|
| | | | <u>Sanitary</u> (%) | <u>(gpd x 10⁶)</u> | <u>Processing</u> (%) | <u>(gpd x 10⁶)</u> | <u>Cooling</u> (%) | <u>(gpd x 10⁶)</u> |
| Municipal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Private | 1 | 0.013 | 80 | 0.010 | 5 | 0.001 | 15 | 0.002 |
| TOTAL | 1 | 0.013 | 80 | 0.010 | 5 | 0.001 | 15 | 0.002 |

The Township of Nepean has only one major industry, the Computing Devices of Canada, which employs 475 persons. The water is supplied from three wells which have a pumpage capacity of 2,000 gallons each per hour. At present they are operating at approximately 40 per cent capacity. This firm uses most of its water supply for sanitary purposes and only a small percentage for processing and cooling purposes.

COUNTY OF CARLTON

INDUSTRIAL WATER USE SURVEY

CHAPTER 6

MUNICIPALITIES OF RICHMOND, ROCKCLIFFE PARK,
STITTSVILLE, FITZROY, GOULBOURN, GOWER NORTH,
HUNTLEY, MARCH, MARLBOROUGH, OSGOODE AND
TORBOLTON.

THE HISTORY OF THE

ROYAL SOCIETY OF LONDON

FROM ITS ORIGIN

TO THE PRESENT

BY
JOHN DE LA BECHE, ESQ.
OF THE SOCIETY.
IN TWO VOLUMES.
LONDON:
PRINTED BY J. JOHNSON, ST. PAULS CHURCH-YARD, 1783.

INDUSTRIAL WATER SUPPLIES - MUNICIPALITIES OF
RICHMOND, ROCKLIFFE PARK, STITTSVILLE, FITZ-
ROY, GOULBOURN, GOWER NORTH, HUMILTY, PARCH,
MARLBOROUGH, OSGOOD AND TORBOLTON.

The Villages of Richmond, Rockcliffe Park and Stittsville are residential areas. At present there is no industrial development in these communities. In 1956 Stittsville became incorporated as a police village with a population of 400 persons. At present the population is 1,400. The National Capital Commission estimate of predicted growth in this area is 20,000 persons within twenty years. With this increase in population comes the prospect of industrial development in the Stittsville area.

The remaining municipalities are township areas and are rural farming districts. The water is supplied in most cases by means of dug and drilled wells and is used only for domestic and commercial purposes. At present there is no industrial development in these municipalities.

Date Due

ONTARIO WATER RESOURCES COMMISSION
DIVISION OF WATER RESOURCES.

INDUSTRIAL WATER USE SURVEY
COUNTY OF CARLETON.

MOE/CAR/IND/ASIV
1961

DATE

C.1

ISSUED TO

ASIV

MOE/CAR/IND/ASIV
Ontario Water Resources Co
Industrial water use
survey county of asiv
c.1 a aa



Environment Canada
Library
125 Sussex Drive
Ottawa, Ontario K1P 0V5
Canada

